

Informal Examiner's Amendment

Environmental parameters of the IC 10 include temperature, supply voltage and other external parameters which effect the performance of the IC 10. Additional details on the device that corrects temperature and voltage variations are discussed in a co-pending patent application entitled "Ring Oscillator Dynamic Adjustments for Auto-calibration"

5 and having Serial No. 09/930,822, the content of which is hereby incorporated by reference.

An exemplary process of calibrating and correcting the IC 10 is shown in the flow chart 200 of Fig. 2. First, the IC 10 is initialized (step 201). The process 200 checks for user adjustments (step 202). If a user wants to adjust the operating frequency of the clock
10 to meet the temperature and voltage conditions of the application, the process 200 adds the adjustments so that the oscillator moves toward the user specified operating frequency.

Next, in step 203, voltage, hot electron and temperature calibration signals are sent to the voltage generators, hot electron sources and heaters, respectively. These
15 calibration signals are preferably generated by the processor 12 of Fig. 1 so that they have a known level and can be swept over a known test range. In process step 204, the hot electron sensor responses are monitored. In decision step 206, the hot electron sensor responses are averaged and the averaged result is compared to a predetermined range. If the response is out of range, it is corrected in process step 208. The above steps are
20 performed for each sensor type. For example, in step 210, the temperature sensors are monitored. In decision step 216, the temperature responses are averaged and the averaged result is compared to a predetermined range. If the response is out of range, it is corrected in process step 218. Next, in step 220, the voltage sensors are monitored.